

## **ABSTRACT**

An apparatus and process for visual observation and measurement of aggregated, granular and floating or suspended particles samples, which are gravitationally separated is disclosed. The first part of apparatus is the horizontally focused binocular microscope with vertical positioning. The second part of the apparatus is the revolving test tube holder with vertical positioning and rubber ring for soft tube position fixing. The process is consisting in horizontal focusing on the visual sample analyzing it in liquid. The difference from conventional process of sample analyzing is that in vertical position the gravitationally separated fractions of the sample will be not disturbed during the analysis and study of the sample. This will make possible both to study the micro-granulometry samples under horizontally focused binocular microscope and to use different liquids for gravitational separation of particles and granules without contaminating the environments and degrading working conditions.